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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/937,044

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Hasse Sinivaara

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EXAMINER

PEREZ, JULIO R

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,044

Applicant(s)

SINIVAARA, HASSE

Examiner

Julio R. Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-44 and 47-56 is/are rejected.
- 7) ☒ Claim(s) 45 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The office action dated 02/10/05 has is vacated and substituted with the following office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 40-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis in claims 40-41 for "said first fixed connection" and claim 42 for "said second fixed connection."

It is noted that that the examiner considers that claims 40-42 depend on claim 39.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 30-39, 43-44, 47-56, are rejected under 35 U.S.C. 103(a) as being unpatentable over Armbruster et al. (Armbruster), GB2310973, in view of Schmid et al. (Schmid), 5950129.

Regarding Claim 30, Armbruster discloses a telephone system for a vehicle comprising: a vehicle transceiver, on board said vehicle, and connectable to a cellular telephone network for bi-directional communication therewith (Page 5, lines 4-9, the system includes communication equipment pertaining to a transceiver, and it is connectable to the telephone network on the ground); a plurality of user terminals (Page 5, lines 11-15, communication units connectable to the VCCU, that includes a server within), distributed on board the vehicle, each capable of accepting an identity of a user of the cellular telephone system and each connected to said server terminal whereby a plurality of users may communicate simultaneously with said network via the server terminal (Page 5, lines 16-29; Page 13, lines 5-11; Fig. 2; Fig. 6, Ref. 620, the on-board users may communicate with user on the ground, and both the on-board passenger registration and on-ground user registration may be performed; indeed, several users may communicate with the ground network through the VCCU); and a location data base for identifying users of the cellular telephone system when their identifies are accepted by respective user terminals and for associating those users with said identification address to permit communication to be established between those users and the cellular telephone system via the server terminal (Page 5, lines 1-6; page 6, lines 32-35; Page 7, lines 1-10, the network contains location registers for storing location information; therefore, a subscriber will be allowed to establish communication once he or she is registered).

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Armbruster et al. do not explicitly disclose the wireless communication network, wherein a server terminal, on board said vehicle, connected to said transceiver and having an identification address.

Schmid discloses an aircraft in-flight system controller located on the aircraft for connecting the airborne user to the radio telecommunication system and for providing location and activity information for the subscriber to the ground in-flight system controller (col. 2, lines 56 –64; col. 5, lines 38-67; col. 6, lines 1-25)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the communication system as taught by Armbruster by implementing the system with a server such as the AISC in order to provide the Armbruster's system with the enhanced capability of identification means, which may enable the use of different mobile terminals mounted in the vicinity of a passenger seat so that the mobile terminal can be open to outgoing calls as well as to incoming calls at the unique telephone number linked to the server circuit, and further providing identification means in order to establish a communication between the server circuit and an on-board transceiver, which identifies the users of the phones and relating the users with their identities as the users identify themselves with their respective smart cards or SIMs when run through a card reader located in the telephone terminals at the user's seat.

Regarding Claim 31, the combination of Armbruster and Schmid discloses a telephone system further comprising: a plurality of interface systems each for providing a communication path between said transceiver and a switching network within a

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respective region (Page 6, lines 16-22; Fig. 1, Ref. 106, the system uses the communication system satellites as interface to connect to the earth terminal (102) and consequently to the switching center in the ground network), the switching network being connected to said telephone network and connectable to at least one of said interface systems when the vehicle is located in the region corresponding to that interface system thereby providing a communication path between said transceiver and said telephone network (Page 4, lines 1-6 and 21-34; Page 6, lines 16-24, the system provides connection between the communication system through the satellite and the ground station); and control apparatus operable to select which one of said interface systems should provide the communication path to the transceiver when the vehicle is located in the regions corresponding to a plurality of interface systems (Page 12, lines 15-34; Page 13, lines 1-31, the system provides means to allow connection between the communication units on the mobile vehicle and the terrestrial system).

Regarding Claim 32, the combination of Armbruster and Schmid discloses a telephone system in which said location data base is connected to said telephone network and is accessible to enable said network to locate each of said accepted users and thereby enable by-directional communication between said telephone network and each of said identified users (Page 7, lines 2-18, the network system provides means to locate communication units that establish communication between the on-air unit and the ground units).

Regarding Claim 33, the combination of Armbruster and Schmid discloses a telephone system wherein said control apparatus is further operable to control

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simultaneously the handover of said established communication when the vehicle moves from a first one of said regions to a second one of said regions (Page 14, lines 14-26, the phone network possesses a mobile switching center capable of handling handovers).

Regarding Claim 34, the combination of Armbruster and Schmid discloses a telephone system wherein said identification address remains unaltered as said vehicles moves from said first to said second respective regions (page 14, lines 6-26, the communication unites are allowed to move freely from one section to the other in the network without interruption to their own parameters).

Regarding Claim 35, the combination of Armbruster and Schmid discloses a telephone system wherein said telephone system allows bi-directional communication between each user terminal in said vehicle and said telephone network (Page 14, lines 6-13, the system provides connection between units in mobile vehicle and the ground units).

Regarding Claim 36, the combination of Armbruster and Schmid discloses a telephone system wherein each said interface system comprises a server satellite and at least one associated ground earth station (Page 4, lines 1-6 and 21-34; Page 6, lines 16-24, the system provides connection between the communication system, through the satellite, and the ground station).

Regarding Claim 37, the combination of Armbruster and Schmid discloses a telephone system said vehicle transceiver comprises an aeronautical earth station for bi-directional communication via satellite to a ground earth station, which is connectable

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to the telephone network (page 4, lines 21-34; Page 5, lines 15, the system provides communication between the VCCU and an earth station).

Regarding Claim 38, the combination of Armbruster and Schmid discloses a telephone system wherein said location database is stored in a mobile switching center (Page 14, lines 14-33, the MSC comprises location registers).

Regarding Claim 39, the combination of Armbruster and Schmid discloses a telephone system wherein said user terminal is connected to said server terminal via a first fixed connection and said server terminal is connected to said vehicle transceiver via a second fixed connection (Page 5, lines 10-15, the communication units may hard wired to the VCCU, which contains a server within).

Regarding Claim 43, the combination of Armbruster and Schmid discloses a telephone system wherein said user terminal comprises a cellular phone unit provided with an identification receptor for a subscription identifier of a user of the cellular telephone system (page 5, lines 30-34; Page 6, lines 1-2, the communication unit is capable of receiving identification means of a subscriber).

Regarding Claim 44, the combination of Armbruster and Schmid discloses a telephone system in which the identifier is a SIM card or Smart Card (Page 5, lines 30-34; Page 6, lines 1-2, the user may use a magnetically card to identify himself or herself).

Regarding Claim 47, the combination of Armbruster and Schmid discloses a telephone system wherein said server terminal comprises a personal computer (PC) (Page 7, lines 26-31, the VCCU comprises a computer pertaining to a server).

Regarding Claim 48, the combination of Armbruster and Schmid discloses a telephone system wherein said location database identifies which user of the cellular telephone system is connected to a user terminal by a subscription identifier (Page 6, lines 32-35; Page 7, lines 1-5, the system possesses a register to identify the subscribed users of the system).

Regarding Claim 49, the combination of Armbruster and Schmid discloses a telephone system wherein said switching network and control apparatus comprise an Internet network (Page 14, lines 10-33; Fig. 7, the system contains computers interconnected).

Regarding Claim 50 the combination of Armbruster and Schmid discloses a telephone system said location database is an intranet location register (Page 14, lines 27-33, the locations registers are capable of performing software commands within the MSC corresponding to inter-working computers).

Regarding Claim 51, the combination of Armbruster and Schmid discloses a telephone system wherein the vehicle is an aircraft (Page 3, lines 33-34, the vehicle may include busses or airplanes).

Regarding Claim 52, the combination of Armbruster and Schmid discloses a method of operating a telephone system within a vehicle to enable a plurality of users to simultaneously communication with a ground base cellular telephone system, which method comprises: identifying users of the cellular telephone system when their identifies are accepted by respective user terminals (Page 5, lines 14-32, the users are registered when they are associated with the home network); and associating identified

users with said identification address to permit simultaneous communication to be established between those users and the cellular telephone system via the server terminal (page 12, lines 15-34; Page 13, lines 1-31, communication is established as soon as identification is provided).

Armbruster does not explicitly disclose the wireless communication network, establishing a fixed connection through a plurality of user terminals distributed on board the vehicle to a server terminal having an identification address wherein establishing a connection between said server terminal and an on board transceiver.

Schmid discloses an aircraft in-flight system controller located on the aircraft for connecting the airborne user to the radio telecommunication system and for providing location and activity information for the subscriber to the ground in-flight system controller, which communicates with the on-board transceiver providing connection to the outside (col. 2, lines 56 –64; col. 5, lines 38-67; col. 6, lines 1-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the communication system as taught by Armbruster by implementing the system with a server such as the AISC in order to provide the Armbruster's system with the enhanced capability of identification means, which may enable the use of different mobile terminals mounted in the vicinity of a passenger seat so that the mobile terminal can be open to outgoing calls as well as to incoming calls at the unique telephone number linked to the server circuit, and further providing identification means in order to establish a communication between the server circuit and an on-board transceiver, which identifies the users of the phones and relating

the users with their identities as the users identify themselves with their respective smart cards or SIMs when run through a card reader located in the telephone terminals at the user's seat.

Regarding Claim 53, the combination of Armbruster and Schmid discloses a method, further comprising: establishing a communication path between said transceiver and a switching network via a satellite and associated ground station when said vehicle is in a respective region wherein said switching network is connected to said cellular telephone system (Page 4, lines 1-6 and 21-34; Page 6, lines 16-24, the system provides connection between the communication system through the satellite and the ground station).

Regarding Claim 54, the combination of Armbruster and Schmid discloses a method, further comprising: selecting which satellite should provide a communication path to the transceiver when the vehicle is located in a region corresponding to a plurality of satellites (Page 12, lines 15-34; Page 13, lines 1-31; Fig. 1, Ref. 106, the system provides means to allow connection between the communication units on the mobile vehicle and the terrestrial system).

Regarding Claim 55, the combination of Armbruster and Schmid discloses a method, wherein the vehicle is an aircraft (Page 3, lines 33-34, the vehicle may include busses or airplanes).

Regarding Claim 56, Armbruster discloses a telephone for use in a telephone system for a vehicle comprising: a vehicle transceiver, on board said vehicle, and connectable to a cellular telephone network for bi-directional communication therewith

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(Page 5, lines 16-29; Page 13, lines 5-11; Fig. 2; Fig. 6, Ref. 620, the VCCU is able to connect to a ground network); a plurality of user terminals (Page 5, lines 11-15, communication units connectable to the VCCU, that includes a server within), distributed on board the vehicle, each capable of accepting an identity of a user of the cellular telephone system and each connected to said server terminal whereby a plurality of users may communicate simultaneously with said network via the server terminal (Page 5, lines 16-29; Page 13, lines 5-11; Fig. 2; Fig. 6, Ref. 620, the on-board users may communicate with user on the ground, and both the on-board passenger registration and on-ground user registration may be performed; indeed, several users may communicate with the ground network through the VCCU); and a location database for identifying users of the cellular telephone system when their identifies are accepted by the respective user terminals and for associating those users with said identification address to permit communication to be established between those users and the cellular telephone system via the server terminal (Page 5, lines 1-6; page 6, lines 32-35; Page 7, lines 1-10, the network contains location registers for storing location information; therefore, a subscriber will be allowed to establish communication once he or she is registered); said telephone being adapted to prevent RF emission when connected in a vehicle (Page 5, lines 7-15, the communication units are connected through wire to the VCCU, hence avoiding radiation exposure).

Armbruster et al. do not explicitly disclose the wireless communication network, wherein a server terminal, on board said vehicle, connected to said transceiver and having an identification address.

Schmid discloses an aircraft in-flight system controller located on the aircraft for connecting the airborne user to the radio telecommunication system and for providing location and activity information for the subscriber to the ground in-flight system controller (col. 2, lines 56 –64; col. 5, lines 38-67; col. 6, lines 1-25)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the communication system as taught by Armbruster by implementing the system with a server such as the AISC in order to provide the Armbruster's system with the enhanced capability of identification means, which may enable the use of different mobile terminals mounted in the vicinity of a passenger seat so that the mobile terminal can be open to outgoing calls as well as to incoming calls at the unique telephone number linked to the server circuit, and further providing identification means in order to establish a communication between the server circuit and an on-board transceiver, which identifies the users of the phones and relating the users with their identities as the users identify themselves with their respective smart cards or SIMs when run through a card reader located in the telephone terminals at the user's seat.

6. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armbruster et al. (Armbruster), GB2310973, in view of Schmid et al. (Schmid), 5950129, further in view of Mikkola et al (Mikkola), Pub. No. 200200447787.

Regarding Claims 40-41, the combination of Armbruster and Schmid discloses all the limitations in claim 30.

Armbruster or Schmid do not explicitly disclose a telephone system according wherein said first fixed connection is RS232 serial bus or USB.

Mikkola discloses a method and devices for mobile communications that comprises a Universal Serial Bus for data transmission to a terminal or mobile station (page 8, par. 106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system as taught by Armbruster and Schmid with the teachings of Mikkola because it would provide the system with more alternative data link connections between the components.

7. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armbruster et al. (Armbruster), GB2310973, in view of Schmid et al. (Schmid), 5950129, further in view of Galipeau et al (Galipeau), Pub. No. 20030208764.

Regarding Claim 42, the combination of Armbruster and Schmid discloses all the limitations in claim 30.

Armbruster or Schmid do not explicitly disclose a telephone system wherein said second fixed connection is a CEPT-E1 connection.

Galipeau discloses an aircraft data management system that transmits messages to an aircraft unit using a CEFT-E1 as connection line (page 7, pars. 0109-0110).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system as taught by Armbruster and

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Schmid with the teachings of Galipeau because it would provide the system with efficient and reliable communication.

Allowable Subject Matter

8. Claims 45-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. With respect to claims 30-39, 43-44, 47-56, applicant has selected not to argue per request for complete office action dated May 27, 2005.

10. Applicant's arguments with respect to claims 40-42 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments with respect to claims 45-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R. Perez whose telephone number is (571) 272-7846. The examiner can normally be reached on 7:00 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272- 4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


7/10/05


TEMICA BEAMER
PRIMARY EXAMINER 7/11/05